

claims 2-4, 6, 12, 14-15, 18, 21, 24-30, 41, 43, 45-48, 54, 56-67, 72-80, 84, 86-120, 122-123, 126-150, 154, 156-157, 162-164, 168-178, 180-188 & 193-203 are cancelled.

For the PTO's convenience, claims that remain unchanged are included below in order to allow the Examiner to review all pending claims from this response in their numerical order.

Please cancel claims 2 to 4.

5. (Three Times Amended) A method of controlling, at an intermediate television transmission station, the communication of television programming to a subscriber, said station having a computer for controlling the storage and communication of said television programming, said method comprising the steps of:

receiving units of said television programming, by said station, from a remote television programming source;

receiving signals from said remote source, each of said signals identifying one of said received units or a source of said one of said received units;

inputting said signals to said computer;

storing at least one of said received units based on said step of receiving;

receiving at said computer a programming schedule, said programming schedule designating for at least one of said received units at least one of:

(a) an output channel to be used in communicating said at least one of said received units; and

(b) a time said at least one of said received units; and

communicating said at least one of said received units from said station to said subscriber according to said programming schedule based on said step of storing.

Please cancel claim 6.

62 7. **(Three Times Amended)** The method of claim 5, wherein said station comprises a plurality of receivers for receiving said received units and said signals, said step of inputting comprising the steps of:

selecting a specific receiver of said receivers; and

inputting said signals received by said selected receiver to said computer.

8. **(Unchanged)** The method of claim 5, wherein said at least one stored unit is stored at a local programming source, said local source comprising a television programming storage device located at said station for storing said at least one stored unit.

9. **(Unchanged)** The method of claim 5, further comprising the step of logging said step of communicating.

10. **(Three Times Amended)** A method of controlling, at an intermediate transmission station, the communication of television programming to a subscriber, said station comprising a computer for controlling the communication of said television programming, said method comprising the steps of:

63 receiving first units of said television programming, to be communicated to said subscriber, from one or more remote television programming sources;

loading a plurality of second units of said television programming, to be communicated to said subscriber, onto a local programming source located at said station;

receiving a plurality of signals from said one or more remote television programming sources, each of said signals designating one unit of said first units and said second units;

identifying in response to each of said signals said unit designated by said signal, said unit designated by said signal being selected from said first units and said second units;

communicating said identified unit to said subscriber.

11. **(Three Times Amended)** The method of claim 10 further comprising a step of receiving a programming schedule, said programming schedule designating at least one of a time and an output channel for communicating each said one unit to said subscriber, wherein said step of communicating comprises the step of communicating each said one unit to said subscriber according to said programming schedule.

Please cancel claim 12.

13. **(Three Times Amended)** The method of claim 10, wherein said step of communicating comprises the step of communicating each said one unit to said subscriber according to said each of said signals, said each of said signals further designating at least one of a time and a channel for communicating said one unit to said subscriber.

Please cancel claims 14 to 15.

16. **(Three Times Amended)** The method of claim 10 further comprising the step of storing at least one of said units received by said station in a storage device.

17. **(Three Times Amended)** The method of claim 11, wherein said step of identifying comprises the steps of:

comparing said each of said signals to data in said programming schedule, said data identifying said one unit;

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determining based on said programming schedule whether said one unit designated by said each of said signals will be received from said one or more remote sources and should be communicated immediately upon receipt to said subscriber, or whether said one unit is loaded onto said local source and should be output therefrom to said subscriber, each of said second units loaded onto said local source being stored at a storage location on said local source; and

identifying said storage location of said one unit designated by said each of said signals if said one unit is loaded onto said local source.

Please cancel claim 18.

19. **(Unchanged)** The method of claim 10 and further comprising the step of logging said step of communicating.

20. **(Three Times Amended)** An apparatus located at an intermediate television transmission station for controlling the communication of units of television programming to a plurality of subscribers, said apparatus comprising:

a first receiver for receiving a first portion of said units of television programming and a first identifier;

a television programming storage device for storing a second portion of said units of television programming and a second identifier;

a switch having inputs operatively connected to said first receiver and said storage device, said switch having one or more outputs operatively connected to one or more output channels; and

67 a computer operatively connected to said switch and said storage device, said computer having access to a programming schedule, said programming schedule designating for at least one unit of said units of television programming at least one of:

- (a) a time to communicate to said plurality of subscribers; and
- (b) an output channel to be used for communicating to said plurality of subscribers;

said computer selecting said at least one unit of said units of television programming based upon said first identifier or said second identifier, and said computer configuring said switch and controlling said storage device to communicate said at least one unit of said units of television programming to said plurality of subscribers according to said programming schedule.

Please cancel claim 21.

22. (Unchanged) The apparatus of claim 20, wherein said storage device comprises a plurality of television programming storage devices connected to said switch, said computer further configuring said switch to select a specific one of said plurality of television programming storage devices.

68 23. (Three Times Amended) The apparatus of claim 20, wherein said first identifier designates said first portion of said units of television programming for storage or delayed communication to said plurality of subscribers, wherein said computer further operates to control said switch to communicate said first portion of said units of

68 television programming to said storage device and controls said storage device to store said first portion of said units of television programming.

Please cancel claims 24 to 30.

31. (Three Times Amended) A method of controlling at an intermediate television transmission station the communication of television programming to a subscriber, said station having a computer for controlling the communication of said television programming, said method comprising the steps of:

receiving at least one unit of said television programming from a remote programming source;

receiving a signal;

69 storing a plurality of units of said television programming on a local programming source;

receiving a programming schedule designating for said received at least one unit or said stored units at least one of:

(a) an output channel to be used in communicating said received at least on unit or said stored units;

(b) an approximate time for communicating to said subscriber said received at least one unit or said stored units;

detecting said signal;

passing said detected signal to said computer;

identifying that said detected signal is a predetermined signal; and

communicating at least one unit of said received unit or said stored units from said station to at least one of said subscriber in response to said step of identifying and according to said programming schedule.

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32. **(Three Times Amended)** The method of claim 31, wherein said signal is one of a plurality of different signals, said step of identifying comprises the step of identifying an instruct-to-delay signal, and said method further comprises the steps of selecting one of said received at least one unit and storing said selected unit in response to said step of identifying said instruct-to-delay signal, thereby allowing a delayed communication of said selected unit.

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33. **(Twice Amended)** The method of claim 32 wherein said selected unit is identified by said instruct-to-delay signal.

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34. **(Three Times Amended)** The method of claim 32 wherein said selected unit is identified by being transmitted with said instruct-to-delay signal from said remote source.

35. **(Three Times Amended)** The method of claim 31, wherein said signal is one of a plurality of signals, said step of identifying comprises the step of identifying an instruct-to-communicate signal, said step of communicating being performed in response to said step of identifying said instruct-to-communicate signal, said step of communicating comprises the steps of:

selecting a unit from one of:

- (a) the stored units stored on said local source; and
- (b) the received at least one unit received from said remote source; and

communicating said selected unit to said subscriber at a time and on an output channel according to said programming schedule.

36. **(Three Times Amended)** The method of claim 31, wherein said signal is one of a plurality of different signals, said step of identifying comprises the step of

identifying an instruct-to-determine-input signal, and said step of communicating comprises the steps of:

selecting a unit from one of:

- (a) the stored units stored on said local source, said local source being operatively connected to a first input of a switch; and
- (b) the received at least one unit received from said remote source, said received unit being operatively connected to a second input of said switch, said switch operatively connecting one of said first and second inputs to a switch output;

identifying one of said first and second inputs from which to communicate said selected unit to said subscriber in response to said instruct-to-determine-input signal;

configuring said switch to transfer said selected unit from said identified input to said switch output;

communicating said selected unit from said switch output to said subscriber according to said programming schedule.

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37. **(Three Times Amended)** The method of claim 31, wherein said signal is one of a plurality of different signals, said step of identifying comprises the step of identifying an instruct-to-determine-output signal, and said step of communicating comprises the steps of:

selecting a unit from one of:

- (a) the stored units stored on said local source; and
- (b) the received unit received from said remote source;

identifying an output channel over which to communicate said selected unit to said subscriber in response to said instruct-to-determine-input signal; and

communicating said selected unit to said subscriber over said identified output channel.

38. **(Four Times Amended)** The method of claim 31, wherein said signal is one of a plurality of different signals, said station comprising a switch operatively connecting first and second switch inputs to a plurality of switch outputs, each of said switch outputs operatively connected to at least one said output channel, said stored units and said received unit operatively connected to said first and second switch inputs, respectively, said step of identifying comprises the step of identifying an instruct-to-transfer signal, and said step of communicating comprises the steps of:

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selecting a unit of programming from said stored units or said received unit;
identifying one of said first and second switch inputs from which to communicate said selected unit;

identifying one of said switch outputs to which to transfer said selected unit, said one switch output being identified through the designation of said output channel by said programming schedule;

communicating a switch control signal to said switch in response to said steps of identifying said one of said first and second switch inputs and said one switch output;

configuring said switch in response to said switch control signal to transfer said selected unit from said identified one of said first and second switch inputs to said identified one switch output;

communicating said selected unit according to said programming schedule over a cable television distribution system.

39. **(Unchanged)** The method of either of claims 32, 35, or 37 wherein said step of communicating further comprises the steps of:

communicating a switch control signal to a switch;
configuring said switch in response to said switch control signal to transfer one unit of said received unit or said stored units from a selected input of said switch to a selected output of said switch.

40. **(Four Times Amended)** A method of controlling at an intermediate television transmission station the communication of units of television programming to a subscriber, said station having a computer for controlling the communication of said television programming, said method comprising the steps of:

receiving units of said television programming from at least one remote television programming source;

613 receiving a control signal from said at least one remote television programming source;

selecting at least one of said received units in response to said control signal;

identifying an input channel based on said control signal;

receiving a programming schedule designating for said identified input channel at least one of:

(a) an output channel to be used; and

(b) a time said selected unit is to be communicated to said subscriber; and

communicating said selected unit from said station to said subscriber according to said programming schedule.

Please cancel claim 41.

614 42. **(Four Times Amended)** The method of claim 40 wherein said station has a plurality of said output channels to be used in communicating said selected unit to said subscriber, said step communicating further comprising the steps of:

communicating switch control signals to a switch;

configuring said switch to communicate said selected unit from said identified input channel.

Please cancel claim 43.

44. (Unchanged) The method of claim 40 and further comprising the step of logging said step of communicating.

Please cancel claims 45 to 48.

49. (Unchanged) The method of claim 8, 17, or 42 further comprising the step of identifying a specific one of said received units of on the basis of a unit identification signal embedded in said received unit.

50. (Unchanged) The method of claim 8, 17, 31, 38 or 42 further comprising the step of logging a unit identification signal identifying at least one of:

- (a) said time; and
- (b) said output channel.

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51. **(Three Times Amended)** The method of claim 5, 11, 31 or 40, wherein said step of receiving said programming schedule comprises the steps of receiving said programming schedule from a remote information source and storing said programming schedule.

52. (Unchanged) The method of claim 8, 17, or 42, wherein said programming schedule is received from a remote information source.

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53. **(Twice Amended)** The method of claim 31, wherein said step of storing comprises the steps of:

614 loading a plurality of prerecorded ones of said units of television programming
onto said local source; and
storing a plurality of said received at least one unit on said local source.

Please cancel claim 54.

617 55. (Twice Amended) The method of claim 31, wherein said step of
receiving comprises the step of receiving a programming transmission via satellite from a
television network, said programming transmission comprising said at least one unit of
said television programming and one or more digital signals embedded in said
programming transmission.

Please cancel claims 56 to 67.

618 68. (Three Times Amended) A method of controlling the communication
of units of television programming to a subscriber comprising the steps of:

receiving a first plurality of said units of television programming from a remote
programming source;

storing a second plurality of said units of television programming on a local
programming source;

receiving a plurality of signals from said remote programming source;
receiving at a computer a programming schedule that designates for one or more
units of said stored units or said received units at least one of:

- (a) an output channel to be used in communicating; and
- (b) a time for communicating to said subscriber;

selecting a unit of said stored units or said received units based upon at least one
of said received signals; and

618 communicating said selected unit to said subscriber at said time or on said
channel designated by said programming schedule.

619 69. (Amended) The method of claim 68 further comprising a step of
logging the step of communicating said selected unit to said subscriber.

70. (Three Times Amended) The method of claim 68 wherein said step of
storing comprises the steps of:

620 loading a plurality of prerecorded ones of said units of television programming
onto said local programming source; and
storing said received units on said local source.

71. (Twice Amended) The method of claim 68 wherein said step of
receiving a plurality of signals comprises the step of receiving said plurality of signals
from said remote programming source, each of said signals identifying either one unit of
said stored units or said received units or a source of one unit of said stored units or said
received units.

Please cancel claims 72 to 80.

621 81. (Twice Amended) The method of claim 68, wherein said step of
receiving said programming schedule comprises the steps of:
receiving said programming schedule from a remote information source; and
storing said received programming schedule.

621 82. **(Twice Amended)** The method of claim 5, 10, 31, 40, 56, or 68, wherein said step of receiving said units of said television programming from said remote source further comprises the step of receiving data identifying said units.

83. **(Four Times Amended)** An apparatus for controlling the communication of units of television programming to a subscriber, said apparatus comprising:

one or more receivers for receiving a first plurality of said units of said television programming and a plurality of signals from a remote programming source;

622 a television programming storage device storing a second plurality of said television programming units;

a switch having inputs operatively connected to said one or more receivers and said storage device, said switch having one or more outputs operatively connected to one or more output channels;

a computer operatively connected to said switch and said storage device, said computer having access to a programming schedule, said programming schedule designating for at least one unit of said units of television programming at least one of:

- (a) a time to communicate to said subscriber; and
- (b) one of said one or more output channels to be used for communicating to said subscriber; and

said computer programmed to perform the following steps:

(a) selecting said at least one unit of said units of television programming designated by said programming schedule from said first plurality of units of television programming and said second plurality of units of television programming;

(b) configuring said switch to communicate said selected at least one of said units of television programming to said subscriber according to said programming schedule.


Please cancel claim 84.

85. (Unchanged) The method of claim 38, further comprising the step of identifying a specific one of said at least one received unit of television programming on the basis of a unit identification signal embedded in said at least one received unit of television programming.




Please cancel claims 86 to 120.

121. **(Twice Amended)** A method for identifying and broadcasting or cablecasting television programming in a television transmission station that comprises storage means capable of storing at least one unit of television programming, and unit identification information identifying each unit of programming, wherein said transmission station also comprises a plurality of broadcast or cablecast transmission means, internal transfer means capable of transferring television programming from said storage means to at least one selected broadcast or cablecast transmission means, control means for comparing identification information with schedule information, and controlling said internal transfer means, with each of said broadcast or cablecast transmission means capable of transmitting television programming over a channel, said method comprising the steps of:

inputting schedule information that identifies at least one of a category and a unit of television programming;

locating identification information in a television transmission that identifies a unit of television programming, said television transmission including television programming; and

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determining that said identification information identifies television programming of a scheduled unit, thereby to enable said station to broadcast or cablecast television programming of a scheduled unit.

Please cancel claim 122 to 123.

124. **(Twice Amended)** A method of controlling the communication of television programming at a television transmission station, said station having a computer controlling the communication of television programming, said method comprising the steps of:

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embedding a control instruction in a unit of television programming;
storing said unit of television programming with said embedded control instruction at a television programming storage device;
inputting to said computer a programming schedule indicating for each of a plurality of programming units an output channel to be used in communicating said unit of programming to a subscriber;
outputting said units of television programming from said television programming storage device, said units of programming having said control instruction embedded therein;
detecting said control instruction in said units of television programming outputted from said television programming storage device; and
communicating said units of television programming outputted from said television storage device to at least one subscriber on said output channel indicated by said programming schedule in response to detecting said control instruction.

125. **(Amended)** A method of communicating television programming from a television transmission station to a subscriber at a television subscriber station, said

transmission station having a computer controlling the transmission of television programming, said subscriber station having a computer for controlling the communication of received television programming to said subscriber located at said subscriber station, said method comprising the steps of:

embedding a control instruction in a unit of television programming, said control instruction providing instructions as to the communication of said unit of programming to said subscriber;

624 transmitting said unit of television programming with said embedded control instruction from said transmission station to said subscriber station;

said step of transmitting thereby enabling said subscriber station to receive said unit of programming and enabling said subscriber station computer to detect said control instruction embedded in said unit, and enabling said subscriber station computer to communicate said unit of programming to said subscriber in accordance with said control instruction.

Please cancel claims 126 to 150.

151. (Amended) An apparatus located at a television transmission station for controlling the communication of television programming, said apparatus comprising:

625 a programming storage device for storing and outputting an information transmission comprising television programming and control instructions embedded in said information transmission;

a switch operatively connected to said programming storage device, said switch comprising a plurality of output channels, with each output channel capable of communicating said information transmission to a subscriber, said switch connecting said storage device to selected output channels;

a detector operatively connected to said programming storage device detecting the presence of said control instructions embedded in said information transmission;

a first computer for receiving a programming schedule in response to said control instructions, said programming schedule designating at least one of:

(a) scheduled identification information designating said television programming;

(b) an output channel to be used for communicating said television programming to said subscriber; and

(c) an approximate time of communication to said subscriber if said television programming is to be communicated to said subscriber; and

a second computer operatively connected to said programming storage device, said switch, said detector, and said first computer, for configuring said switch to communicate said television programming from said programming storage device to said selected output channels according to said programming schedule.

152. (Unchanged) An apparatus for controlling the communication of television programming, said apparatus comprising:

a switch comprising at least one input channel and a plurality of output channels;

a plurality of programming recorder/players connected to said switch for recording and playing said television programming, said switch connecting said programming recorder/players selectively to said output channels;

a detector operatively connected to a selected one of said plurality of programming recorder/players for detecting control instructions stored at said selected programming recorder/player; and

a computer operatively connected to said plurality of programming recorder/players, said switch and said detector, said computer controlling said selected programming recorder/player to locate and play selected television programming stored

at said selected programming recorder/player, said computer configuring said switch to connect said selected programming recorder/player to a selected one of said plurality of output channels, with said computer controlling said selected programming recorder/player and said switch in response to said control instructions.

153. (Unchanged) An apparatus for controlling the communication of television programming, said apparatus comprising:

a switch having at least one input channel and at least one output channel;

a plurality of programming storage devices connected to said switch for storing and outputting said television programming, said switch connecting said storage devices selectively to said output channel;

a computer operatively connected to said storage devices and said switch, said computer controlling a selected storage device to locate and output selected television programming stored at said selected storage device, said computer configuring said switch to connect said selected storage device to said output channel, with said computer controlling said selected storage device and said switch in response to a control instruction; and

a detector operatively connected to said output channel and said detector for detecting said control instruction in an information transmission communicated by said output channel and inputting said control instruction to said computer.

Please cancel claim 154.

155. (Unchanged) An apparatus for controlling the communication of television programming in response to control instructions, said apparatus comprising:

a switch comprising an input channel for receiving an information transmission and an output channel for communicating said information transmission, said information transmission comprising television programming and control instructions;

a programming storage device operatively connected to said switch for receiving, storing and communicating said information transmission;

a computer operatively connected to said switch and said storage device for receiving said control instructions from said storage device and controlling said switch to receive television programming from said storage device and communicate television programming to said storage device in response to said control instructions.

Please cancel claims 156 to 157.

158. (Unchanged) A television transmission station apparatus for storing and communicating television programming, said apparatus comprising:

a storage device for storing and outputting units of information comprising television programming and control instructions;

a transmitter for communicating television programming to a receiver station;

a decoder operatively connected to said storage device for detecting said control instructions in said units of information;

a first controller operatively connected to said decoder for controlling the detection of said control instructions by said decoder; and

a second controller operatively connected to said first controller and said storage device for controlling said storage device to output selected units of television programming to said transmitter in response to said control instructions.

159. (Unchanged) The apparatus of claim 158, wherein said control instructions comprise: (1) control instructions for controlling the operation of said first

controller and said second controller and (2) programming unit identification information identifying said selected units of television programming.

160. (Unchanged) The apparatus of claim 158, wherein said first controller identifies said units of television programming based upon information in said control instructions, said first controller being programmed with the pattern of signal composition or of signal timing for the units of information to enable said decoder to detect said control instructions and said first controller to identify said selected units of television programming and said control instructions.

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161. (Twice Amended) The apparatus of claim 158, wherein said control instructions include digital data and are embedded in said television programming.

Please cancel claims 162 to 164.

165. (Unchanged) A television transmission station apparatus for storing and communicating television programming, said apparatus comprising:

a storage device for storing and outputting units of information comprising units of television programming and control instructions;

a plurality of transmitters operatively connected to said storage device, with each of said plurality of transmitters capable of communicating selected units of television programming to a receiver station;

a decoder operatively connected to said storage device for locating and identifying said control instructions;

a controller operatively connected to said decoder for controlling the locating and identifying of said control instructions; and

a computer operatively connected to said controller, said decoder and said transmitters, said computer receiving said control instructions and for determining the identity of said selected units of television programming based upon said control instructions, and said computer controlling said storage device based upon said control instructions to output said selected units of television programming to at least one of said transmitters for transmission to said receiver station.

166. (Unchanged) The apparatus of claim 165 wherein each said control instructions is associated with a unit of television programming, each said control instruction comprising unit identification information that identifies its associated unit of television programming.

167. (Unchanged) The apparatus of claim 166 further comprising a second storage device connected to said computer and an input device operatively connected to said computer, said input device for inputting said television programming unit identification information, said inputted unit identification information being stored in said second storage device, said decoder identifying units of television programming that have unit identification information that corresponds to said inputted unit identification information.


Please cancel claims 168 to 178.

627 179. (Amended) A method of communicating signals in a network comprised of an origination station that transmits signals, at least one intermediate station that receives and retransmits signals, and at least one ultimate receiver station that receives signals from one or more intermediate stations, said method comprising the steps of:

receiving at an intermediate station a plurality of signals transmitted from an origination station, with at least one of said received signals being designated for delayed retransmission, said at least one of said received signals including audio;

627 determining at least one of a designated time and a designated order for retransmitting each received signal;

storing at said intermediate station one or more of said received signals designated for delayed transmission; and

retransmitting each of said received signals from said intermediate station to an ultimate receiver station at at least one of its designated time and in its designated order.

Please cancel claims 180 to 188.

189. (Amended) A method of communicating signals from an intermediate transmission station, said intermediate transmission station comprising a plurality of transmitters and a computer for controlling the communication of information, said method comprising the steps of:

628 receiving an information transmission, said information transmission comprising a signal;

inputting information that designates an output channel or frequency for communicating or transmitting said received signal to a viewer or user, each of said transmitters transmitting over one or more output channels or frequencies;

storing said inputted information;

comparing at least a portion of said received signal to said inputted information;

determining an output channel or frequency designated for said received signal based on said step of comparing;

selecting at least one of said plurality of transmitters at said intermediate transmission station, said selected transmitter transmitting over said output channel or frequency designated for said received signal;

transferring said received signal to said selected transmitter; and

transmitting said received signal from said intermediate transmission station to a viewer or user over said designated output channel or frequency using said selected transmitter.

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190. **(Twice Amended)** The method of claim 189, wherein said received signal comprises a unit of electronic or computer data, said unit comprising and identification portion and an information portion, said step of comparing comprises comparing said identification portion to said inputted information.

191. **(Twice Amended)** The method of claim 189, wherein said received signal comprises a unit of television or radio programming and an embedded identification signal, said step of inputting comprises inputting a programming schedule that designates an output channel or frequency for said received unit of programming, said step of comparing comprises the step of comparing said embedded identification signal of said received unit to said inputted programming schedule.

192. **(Amended)** A method of communicating signals at a transmission station, said transmission station having a receiver or input device for receiving or inputting programming, at least one storage device for storing received or inputted programming, a transmitter and a computer for controlling said receiving, storing, processing, and transmitting of programming, said method comprising the steps of:

receiving, either via said station receiver or said input device, a unit of programming;